

Enrichment 11-1

Exploring Integers

Critical Thinking

Is the deepest point in the ocean further from sea level than the top of the highest mountain in the world?

Use the table of highest and lowest points on land and in the ocean to answer this question as well as the other exercises that follow.

Distances are measured from sea level.

| Mountain | Location | Meters |
|---------------|---------------|--------|
| Kilimanjaro | Africa | 5,995 |
| Aconcagua | South America | 6,960 |
| Everest | Asia | 8,850 |
| McKinley | North America | 6,194 |
| Vinson Massif | Antarctica | 4,897 |
| Elbrus | Europe | 5,640 |

| Name | Ocean | Meters |
|--------------------|----------------|---------|
| Java Trench | Indian Ocean | -7,125 |
| Challenger Deep | Pacific Ocean | -10,924 |
| Puerto Rico Trench | Atlantic Ocean | -8,648 |
| Eurasia Basin | Arctic Ocean | -5,450 |

1. Where is the deepest point in the ocean? What is the elevation?

2. Where is the highest mountain in the world?
What is the elevation?

3. If you made a number line and plotted the elevations in the table, what would 0 represent? What would the points to the left of 0 represent? What would the points to the right of 0 represent?

4. Which is further from sea level, the elevation of the deepest point in the ocean or the elevation of the top of the highest mountain? Explain.

5. If Mt. Kilimanjaro was placed in the Java Trench in the Indian Ocean, would the top of its peak be under water or above water? Explain.
